

# National Weather Service Tallahassee, Florida



In this edition of SkyWarn News:

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- 2008 Hurricane Season Update

# Spotter Identification Cards are Here!



#### Things to Report

- · Hail of penny size or larger
- Trees down, damage to structures, and widespread tree limbs down
- A strongly rotating funnel cloud or tornado
- Floodingthat creates a serious risk to life
- Waterspouts

To report severe weather, contact the National Weather Service in Tallahassee on the spotter phone lines: In the Tallahassee area: (850) 942-8839 Elsewhere: (800) 598-4562

Many of you have asked about the possibility of getting spotter identification cards following completion of your spotter training. We have now created a website where you can create your own spotter card, complete with your unique spotter number. Whether you have taken your spotter training online or completed a course with us in person, you now will be able to create this card by visiting our spotter website and typing in your email address used when you registered for one of our spotter courses.

To create your spotter card, visit our online spotter training page at:

#### http://www.srh.noaa.gov/tae/spotter/

On this page, click on the link "Online Spotter Card." This link will then take you to the following page:

#### **NWS Tallahassee Online Spotter Card**

If you have met all the requarements needed to receive a spotter you can download an online copy of it from this page. If you have any questions, please contact Kelly Godsey at 850-942-8833 to e-mail him.

Local Climate, Water & Weather Topics:
Current Hazards, Current Conditions, Radar, Satellite, Climate, Weather Safety, Contact Us

Enter your email address that you used to register for the spotter course in the box (outlined in red) and click on submit. You must click on "Submit" after you type in your email address for the card to be created properly. Once you press submit, a spotter card, complete with your name and ID number will be created. You can then print the card to carry with you. The card also comes with a reminder of what items we'd like to have reported to us, along with our contact numbers to report severe weather. Please note that the design allows you to fold in half and laminate the card.

If you enter your email address and no card is created, use the link above to email Kelly Godsey and he can update your email address in the system. Remember, we need you to have completed a spotter course before you can create a spotter ID card. Also, please take the time to update your contact information with us by emailing Kelly Godsey with any changes in address, phone number, or other important information you'd like us to be aware of. This helps ensure that our spotter lists are up to date and accurate, if we need to get in touch with you when we are looking for storm damage reports.

We hope that you will enjoy these cards and use them as a way of remembering what important information you can provide to us when you observe severe weather.

## Super Resolution Doppler Radar Comes to Tallahassee

As many of you are aware, the National Weather Service utilizes a series of Doppler Radars across the country to monitor storms across the country. These radars are invaluable in detecting severe thunderstorms and detecting the formation of tornadoes. While radars do not provide "ground truth" (that's why we value our emergency managers and spotters), recent advances in the technology applied to our radar systems have improved our ability to detect and monitor dangerous storms. Recently, the three primary Doppler Radars used by NWS

Tallahassee were upgraded to provide enhanced resolution to the reflectivity and velocity products.

For those of you not familiar with how our Doppler radar, known as "Weather Survellance Radar- 88 Doppler, or WSR-88D for short, operates, check out this description from the NWS JetStream program at the following link:

#### http://www.srh.noaa.gov/srh/jetstream/doppler/doppler\_intro.htm

In short, our radars send out a pulse of energy that returns to the radar after coming in contact with a rain drop, hail, or other object in the sky. The size and quantity of the objects detected by the pulse determines how the reflectivity image appears on our radar display and the internet. The pulse of energy is also able to detect the motion of air inside a thunderstorm. These motions help our forecasters determine if the thunderstorm is capable of producing damaging winds or even a tornado.

### Super Resolution Doppler Radar Explained

By: Mike Jamski, Radar Program Leader

Super Resolution (SR) products are expected to increase the range where forecasters can visually detect hazards such as mesocyclones and tornadic vortex signatures, resulting in increased lead times for warnings. Figure 1 shows reflectivity data in original resolution on the left and the new super resolution on the right. The corresponding velocity products are depicted in Figure 2 below. Note the finer detail with SR in both reflectivity and velocity.

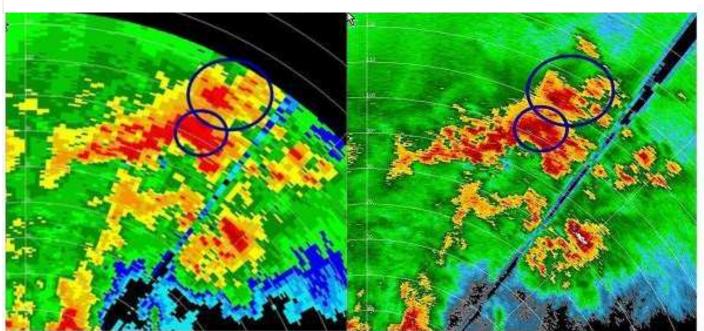


Figure 1. Reflectivity products with original resolution (left) and super resolution (right).

Figure 2. Velocity products with original resolution (left) and super resolution (right).



Processing of super resolution data provides increased detail that did not exist in the original data resolution. SR processing has also extended the display range for velocity from 124 nm to 162 nm, which allows forecasters to detect smaller scale features at longer ranges. Because of bandwidth limitations, the SR reflectivity and velocity products will not be displayed on NWS radar web pages. However, various third party vendors provide this data for a small fee.

## SkyWarn News August 2008 --- Page 5 Hurricane Season Update



Hurricane Dolly making landfall along the South Texas Coast on July  $23^{rd}$  at 1245 pm EDT.

While June was a quiet month in the tropics, July reminded us that we are in hurricane season and there is potential for above normal activity once again.

Bertha, Cristobal, and Dolly all formed within the month of July. Cristobal and Dolly both directly affected the U.S. mainland with Bertha affecting Bermuda before heading out to sea.

Last month we briefly touched on some of the records set by Bertha. Since the publication of the last edition of the newsletter,

Bertha set the already established records a notch higher. Moreover, the three storms in July have put the 2008 Hurricane Season on pace to exceed the activity seen in 2007. Let's take a look at the storms that have formed to date. The table below represents preliminary statistics on each storm, pending certification from the National Hurricane Center.

| Storm Name                  | Dates                   | Max Intensity | ACE Units |
|-----------------------------|-------------------------|---------------|-----------|
| Arthur                      | May 3 – June 2          | 40 mph        | 0.4       |
| Bertha                      | Bertha July 3 – July 20 |               | 28.4      |
| Cristobal July 19 – July 23 |                         | 65 mph        | 3.06      |
| Dolly                       | July 20 – July 24       | 100 mph       | 5.31      |

In addition to basic storm data, the ACE units are provided. ACE stands for Accumulated Cyclone Energy. This is an index that considers the intensity and duration of a tropical cyclone and is another tool used to measure how active a hurricane season is. In the 2007 hurricane season, 72 ACE units were accumulated. To date, the 2008 hurricane season has just over 37 units. This value is comparable to three previous hurricane seasons through July: 2005 (60.4 units), 1916 (48.5 units), and 1933 (34.0 units). All three of these seasons went on to be quite active with over 175 ACE units accumulated as shown in the table below.

| Hurricane | ACE Units in July | Total  | Hurricanes | Major      | Seasonal ACE Units |
|-----------|-------------------|--------|------------|------------|--------------------|
| Season    |                   | Storms |            | Hurricanes |                    |
| 2005      | 60.4              | 27     | 15         | 7          | 248                |
| 1916      | 48.5              | 15     | 10         | 5          | 177                |
| 2008      | 37                | ??     | ??         | ??         | ??                 |
| 1933      | 34                | 21     | 10         | 5          | 213                |

With the peak of the hurricane season still ahead, activity like we have seen thus far reminds us that we must continue to be prepared for the approach of a tropical system. Even though we haven't been affected by a tropical system in a few years, don't let your guard down. If you haven't done so already, make sure you and your family have a plan for what you'll do if a hurricane threatens this region.

If you have an interest in hurricanes, we invite you to download our latest tropical products guide from our website. You can find this new guide on our tropical watch page at the following address:

#### http://www.srh.noaa.gov/tlh/tropical/

Then, look on the left hand side under the "useful links" section for the link to download this products guide.

Do you have any questions about your National Weather Service Office in Tallahassee or about the weather in general? If so, we'd certainly like to hear from you. Also, if you have any suggestions for topics that you'd like to see in the newsletter, please send us an email at <a href="Melly.Godsey@noaa.gov">Kelly.Godsey@noaa.gov</a>

Thank you for all your support for the National Weather Service mission!